

9.

~~SECRET~~
CONFIDENTIAL 13 August 1957

MEMORANDUM FOR: APD PANEL

SUBJECT : Termination of P-172 - Audio on the Power Line

1. The general aim of P-172 was to investigate the practicability of putting audio power directly on the power line and by means of a comb filter technique receive the intelligence some distance away. The program was to determine:

a. The ability of the comb filter technique to filter out the masking line frequencies and its harmonics in the audio range.

b. The amount of power necessary at the target end to transmit a reasonable distance.

c. The ability of the system to produce good quality audio intelligence under general surveillance conditions.

2. The study program conducted by [] indicated that although the idea of putting audio power directly on the power line could be demonstrated in the laboratory, it was quite doubtful if a practical surveillance system could be obtained. The electro-mechanical system of receiver filtering was too subject to critical adjustment and even when adjusted to its best value still did not give an acceptable signal-noise ratio. In addition, it was doubtful if the signal to noise ratio of the output of the transmitter could be made sufficiently good within the size limits imposed by practical considerations. The main problem here was to prevent the power line voltage from effecting the audio qualities of the signal as it went through the power amplifier.

25X1

3. In view of the limited practical success indicated by this study, it is recommended that P-172 be terminated. However, the idea presented should be kept in mind as perhaps a better technical approach will appear to make a practical device seem possible.

25X1

Attachment:

Final Report on Task C

Distribution:

Orig. - P-172 via Panel
1 - Chrono

SPK/mm

CONFIDENTIAL